STATE OF MARYLAND

DHMH

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November 19, 2010

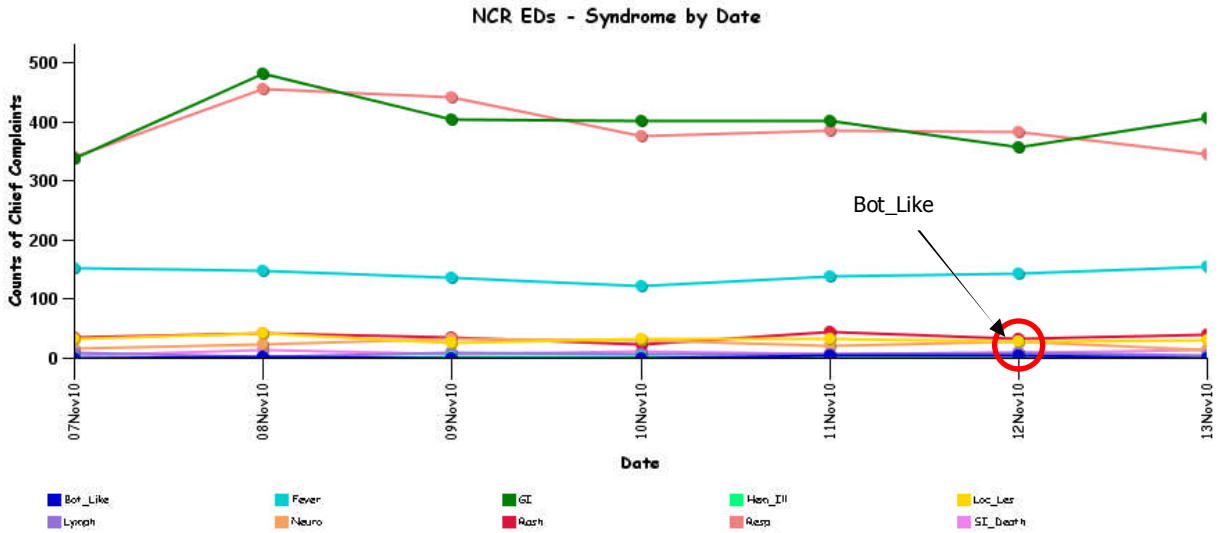
Public Health & Emergency Preparedness Bulletin: # 2010:45
Reporting for the week ending 11/13/10 (MMWR Week #45)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

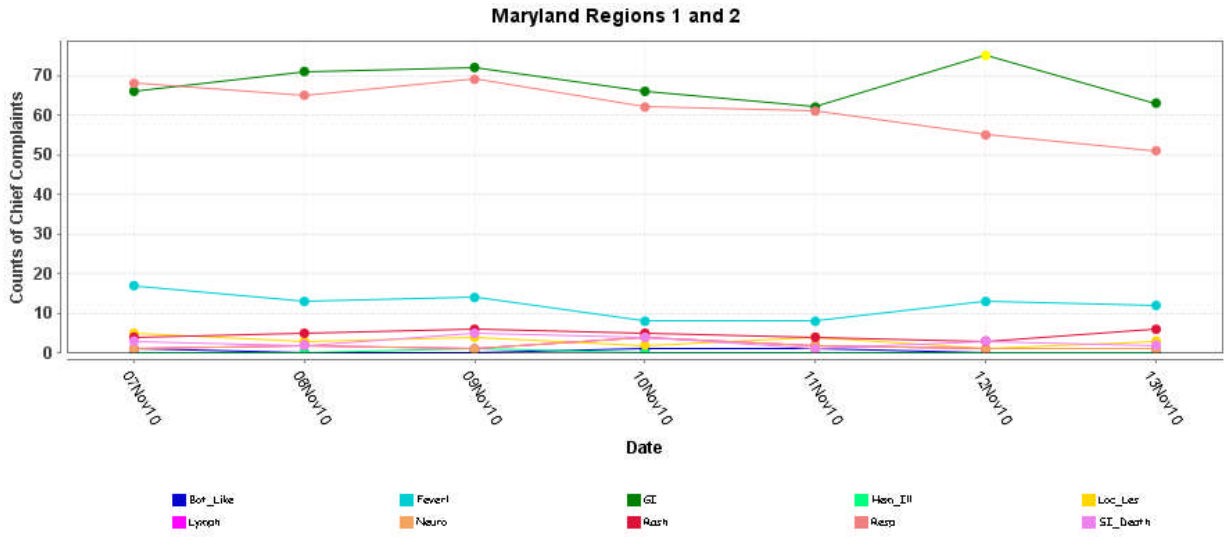
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

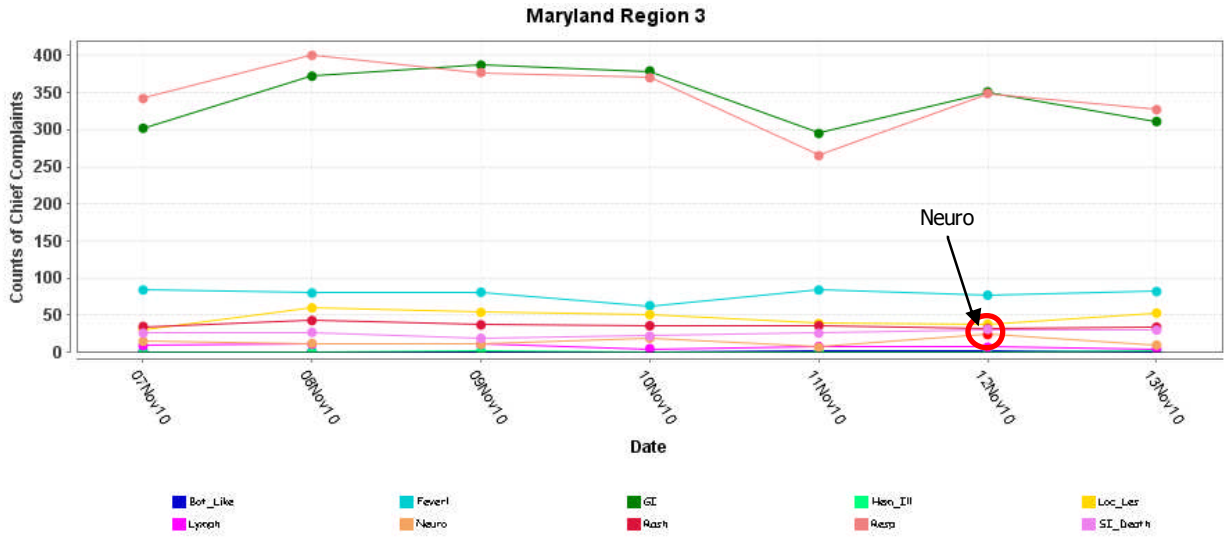


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

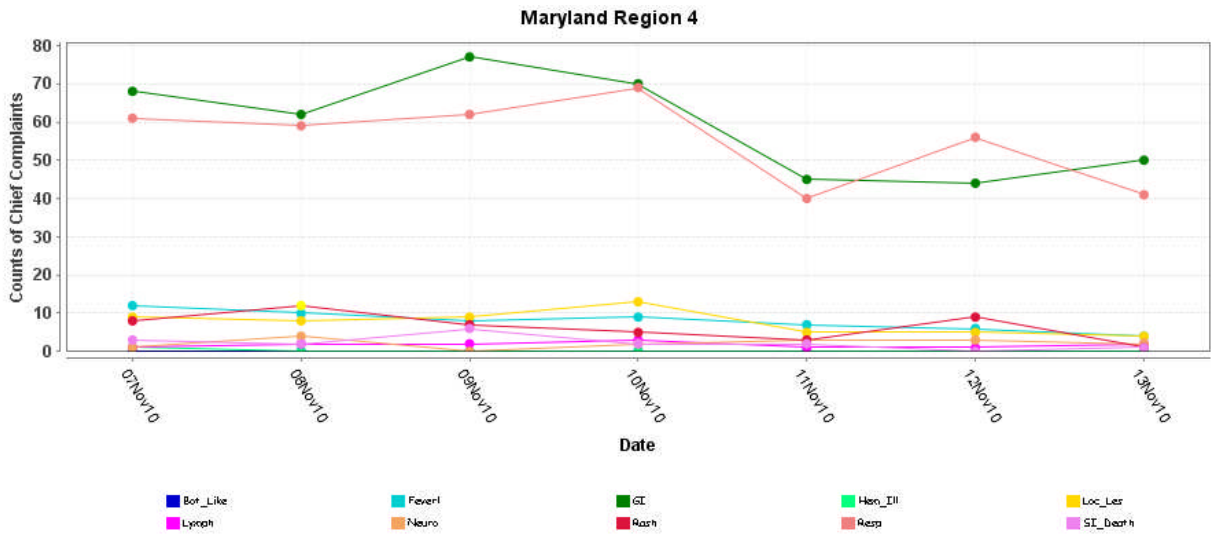
MARYLAND ESSENCE:



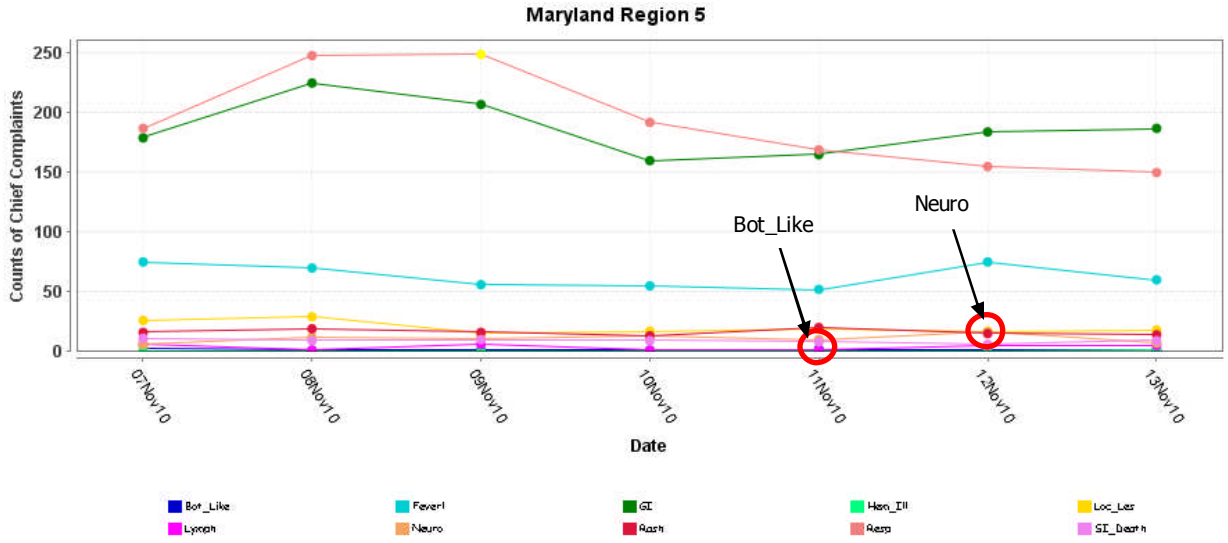
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



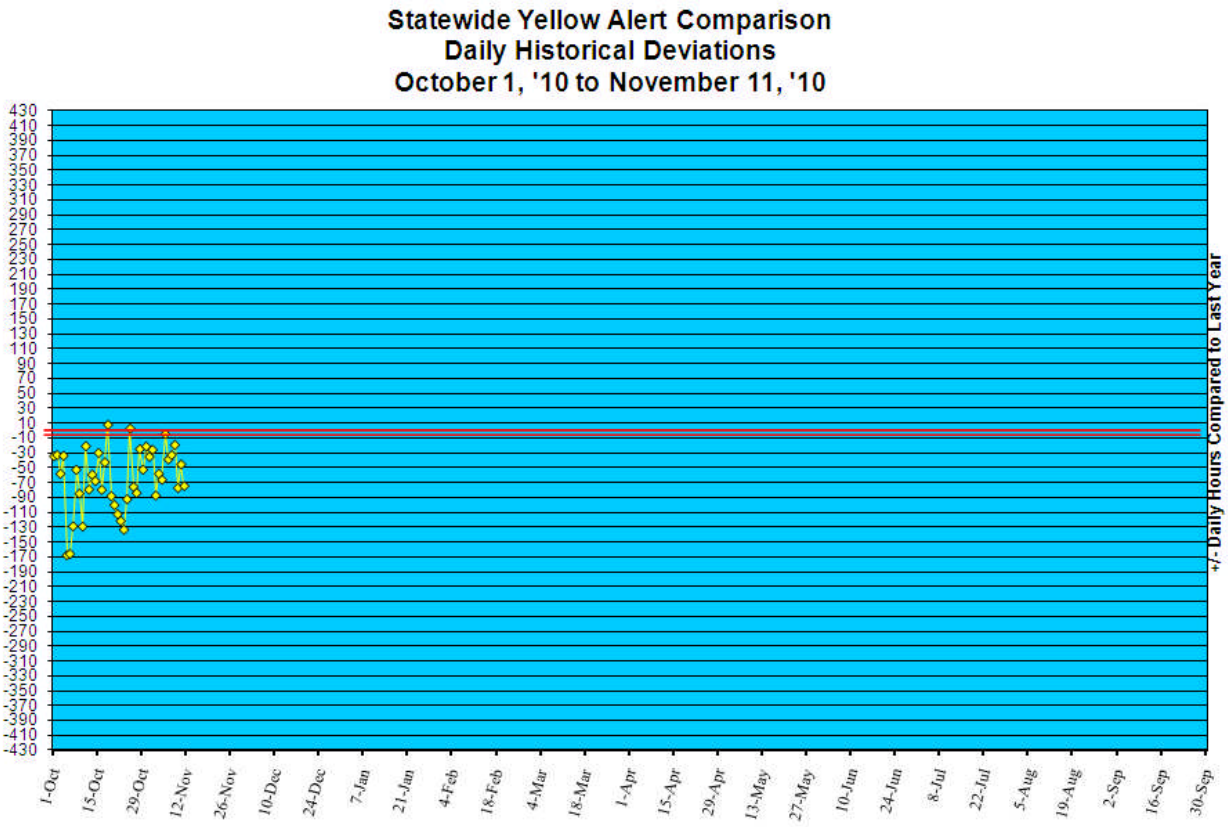
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (November 7 – November 13):	10	0
Prior week (October 31 – November 6):	10	0
Week#45, 2009 (November 1 – November 7, 2009):	8	0

2 outbreaks were reported to DHMH during MMWR Week 45 (November 7 – November 13, 2010):

1 Gastroenteritis outbreak:
1 outbreak of GASTROENTERITIS in a Cafeteria

1 Rash illness outbreak:
1 outbreak of SCABIES in a Nursing Home

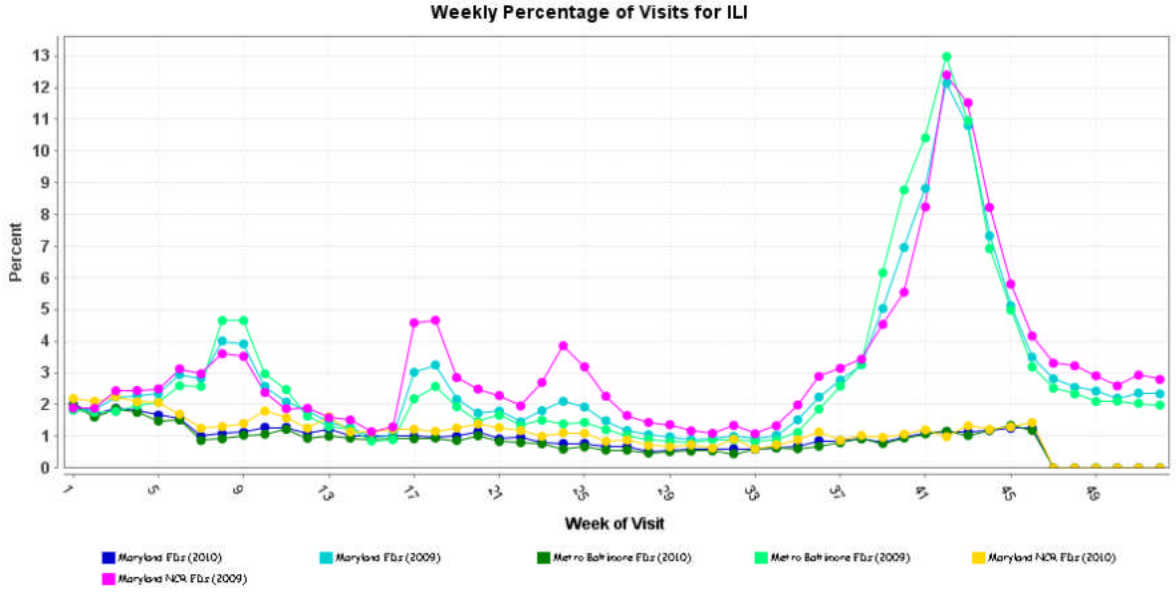
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was sporadic with minimal intensity for Week 45.

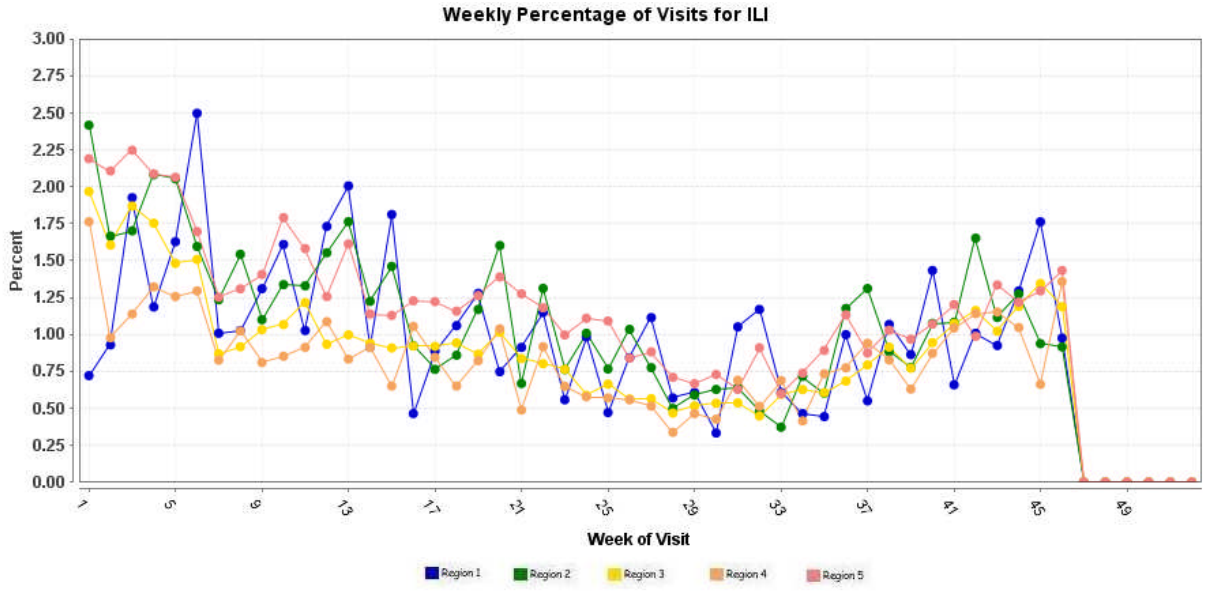
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



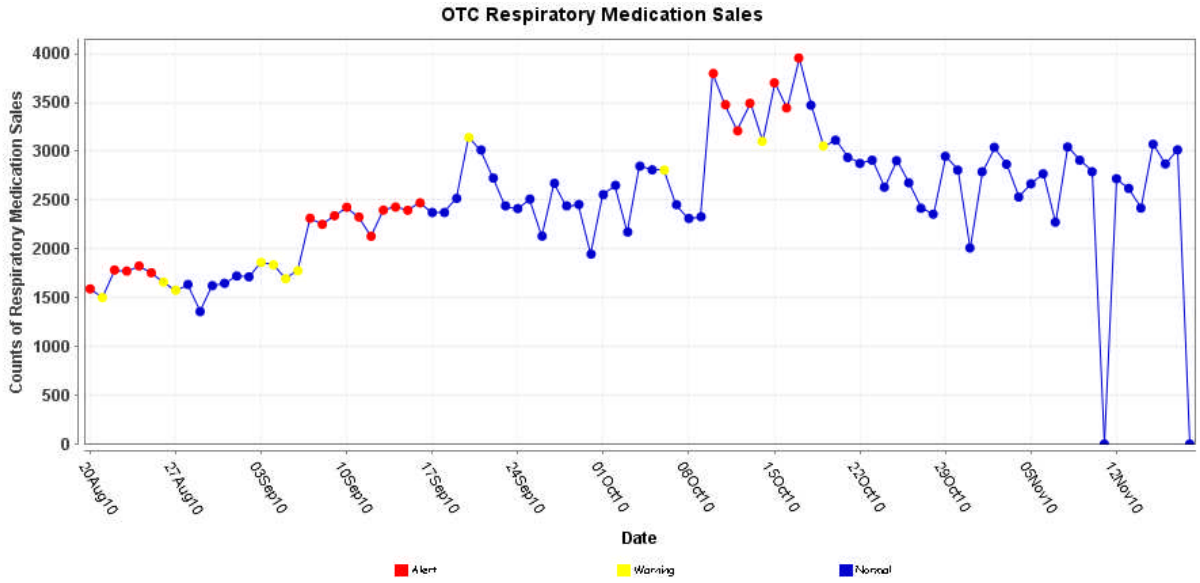
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of October 18, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 507, of which 302 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

AVIAN INFLUENZA, LPNAI, H5N2, DUCK, GOOSE (GERMANY): 13 Nov 2010, The ministry of Agriculture on Friday [12 Nov 2010] ordered the killing of 17 000 ducks and geese over fears that the LPAI virus detected (H5N2) could mutate into the high pathogenic H5N1. The infection was detected on a poultry farm in Parchim, in Germany's state Mecklenburg-West Pommerania [N central Germany], during a routine check visit. No signs of clinical disease were detected. The last time avian influenza was reported in Germany was in 2006, on the Island Ruegen.

NATIONAL DISEASE REPORTS

There are no national disease reports for MMWR Week #45.

INTERNATIONAL DISEASE REPORTS

CHOLERA (HAITI): 13 November 2010, Medical workers in Haiti on Friday [12 Nov 2010] called the upward trend in deaths and illnesses in the cholera outbreak "alarming" as the earthquake-devastated nation's already strained health system overflowed with the sick. In the slum of Cite Soleil on the outskirts of Port-au-Prince, Medecins San Frontieres (MSF; Doctors Without Borders) had seen 216 cases of cholera at Choscal Hospital. 5 days ago, that number was only 30. Stefano Zannini, the head of mission for MSF, said his staff was seeing 7 times the cases they were seeing 3 days ago. "The trend is extremely, extremely alarming," he said. The death toll climbed by Thu 12 Nov 2010 to 796, according to Haiti's Ministry of Public Health and Population. More than 12 000 people have been sickened. Epidemiologists predict the outbreak could last for months and say the entire nation of almost 10 million people is at risk because they have no immunity to cholera. Of grave concern now are confirmed cases that originated in the tent cities of Port-au-Prince, which sprang up to shelter those left homeless by the earthquake in January 2010. Health officials

fear that infection could spread quickly in congested, unsanitary conditions and in impoverished neighborhoods where clean drinking water is at a premium. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

HANTAVIRUS (CHILE): 13 November 2010, There are more than 50 cases and 17 deaths. This is the total that, to date, the dreaded virus has left in our country according to a recent epidemiological report by the Ministry of Health. The authorities, however, although not frightened by the number, are concerned about facing a period that seems more complex than in the past given the number of infected and dead. According to the expert in Risk Prevention of Mutual Security [a Chilean non-profit private institution in charge of risk prevention], Juan Carlos Ahumada, "the increase in cases during this season is due to the beginning of the pre-summer season during which schools and institutions schedule outdoor trips which [provide] conditions for the appearance of long-tailed pygmy rice rat (Oligoryzomys longicaudatus) in search of food. Moreover, this has been a rainy year, with increased presence of quila [a perennial bamboo that grows in the humid temperate forests of Chile and Argentina] and greater availability of grain, preferred foods of these rodents, increasing their reproduction. Ahumada emphasizes that the groups of highest risk of infection by this disease [virus] are residents of rural areas, agricultural and forestry workers and then the visitors and those on excursions that, little by little, appear seduced by the beauty and tranquility in these types of landscapes. Regarding areas of risk, the specialist indicates that special care [should be taken] in those areas with abundant native vegetation forests and brushy areas], covered with grass, and with the presence of wild grains and fruits. "The rodent that transmits the disease [virus] is found between Regions III and XIII, preferentially in isolated areas. Being in places with these characteristics, the risks of exposure to this dangerous virus increase, so that it is necessary to be careful and apply all the preventive measures to avoid being infected" the expert of Mutual Security stated. The clinical picture caused by a variety of hantaviruses in Chile is called hantavirus cardiopulmonary syndrome [HPS] and is similar to influenza. Moreover, it is characterized by acute respiratory compromise, myalgias and, in some cases, by gastrointestinal symptoms. Despite that infected rodents have been found from the Metropolitan Region to region XI, the cases are usually found from Region VI to Region XI. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI, VTEC (NORWAY): 12 November 2010, 3 small children from Oslo, Akershus, and Ostfold are in hospital with a serious kidney disease following an Escherichia coli infection. Oslo University Hospital authorities confirm 2 have developed the potentially fatal hemolytic-uremic syndrome (HUS), which can cause acute kidney failure. The Institute of Public Health (Folkehelseinstituttet/FHI) says the 3rd child, admitted to Ulleval Hospital, has also developed HUS. Medical staff at both hospitals are refusing to give details about their conditions. Both the FHI and Food Safety Authority (Mattilsynet/FSA) are now trying to piece together what the 3 children have eaten, as well as where their parents bought which foodstuffs. They may have to wait up to a week to get the test results back. It is too early to say whether the 3 cases are connected, according to the FHI, however, an FSA spokesperson tells The Foreigner there are normally 20 cases per year. "It is strange when 3 incidents occur in a short period of time, but not impossible," she says. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (FRANCE): 12 November 2010, A report released on Wednesday [10 Nov 2010] by the Prefecture of Vienne in France concluded that 500 people, mostly middle school and high school students in Poitiers, were made ill to varying degrees between 19-22 Oct 2010, after eating hamburgers containing salmonella. Most are young people from 3 middle schools and a high school in Poitiers and about 20 people had to be hospitalized. At Saint-Cyr (Haute-Vienne), 12 cases (7 from Annecy) were identified at a holiday resort, and a dozen were identified in a nursing home for the elderly. The investigation, led by the Departmental Direction of Population Protection, has identified the offending food as a batch of frozen beef patties produced by an Italian company. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN (SCOTLAND): 12 November 2010, A court has heard how a woman ended up in hospital in Dumfries after buying heroin from a dealer who was unaware it was contaminated with anthrax. Sheriff Kenneth Ross said he accepted that Darren Scott, 24, had not known the drug was infected. Scott admitted supplying heroin at the Lochside and Lincluden housing estates in Dumfries between September last year [2009] and the end of March [2010]. He was jailed at the town's sheriff court for a total of 4 years. Depute fiscal Pamela Rhodes said Scott's dealing came to light during a police operation following a number of anthrax cases among heroin users. The court heard the total value of drugs passing through his hands had a street value of up to GBP 20 000 [approx USD 32 000]. Solicitor Liz Dougan said that Scott, described as a prisoner in Dumfries, had developed a cocaine habit and had agreed to become involved with the heroin to write off a debt of about GBP 1000 [approx USD 1600]. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

LASSA FEVER (SIERRA LEONE): 11 November 2010, A South African civil engineer has become the 3rd person to die in an outbreak of Lassa fever in northern Sierra Leone, a health ministry official said on Thursday [11 Nov 2010]. While the acute viral hemorrhagic fever causes some 5000 deaths annually in west Africa, according to World Health Organization figures, it has usually only affected the eastern part of Sierra Leone, and this case has sparked fears the disease may be spreading. "The death of the South African shows the active infection rate of the Lassa fever virus in the district and brings to 3 the number who have now died," said Amara Jambai of the ministry's disease prevention and control directorate. The South African civil engineer, who worked for the Geneva-based bio-energy company Addax, died on Wednesday [10 Nov 2010] after contracting the virus in September [2010]. "Lassa fever cases in Makeni are worrying because the area has not known of any prevalence of the disease in recent times, and the disease is very infectious, and its case fatality [rate] is always high," said Jambai. Lassa fever was identified in the northern Nigerian village of Lassa in 1969 and is endemic in parts of west Africa, including Liberia, Guinea and Senegal. The virus is spread through contact with rat urine or faeces and later between humans through contact with bodily secretions. Two people died in October [2010] in Makeni, including a woman (who ran a restaurant selling rat meat) and her 6 year old son. Of the 153 cases recorded nationwide in the 1st 10 months of the year, 48 people have died, according to health officials. (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN (ENGLAND): 09 November 2010, A drug user in Kent has died in hospital after injecting heroin contaminated with anthrax, the Health Protection Agency (HPA) has confirmed. The agency said it was the fifth case of a drug user in England becoming ill with anthrax, which is a severe bacterial infection. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

HEPATITIS A (KAZAKHSTAN): 09 November 2010, An outbreak of hepatitis A has affected schoolchildren in Ekibastuz [a city of 14,000 inhabitants in Pavlodar province, which is located in north eastern Kazakhstan]. Today [1 Nov 2010] another school [school no. 12] has been placed under quarantine in order to contain the outbreak. Previously school no. 11 was closed after 18 pupils were diagnosed with hepatitis A. The newly closed school [no. 12] has so far only had a single case, nevertheless the school will remain under quarantine until 29 Nov 2010. An epidemiological analysis has established that the new case in school No. 12 had been in contact with some of the pupils in school no. 11 who were diagnosed subsequently as hepatitis A cases. The public health authorities of Pavlodar province have announced that all those who have been contact with the affected schoolchildren will be kept under observation for 35 days and all will receive hepatitis A vaccine. Administrative fines have been imposed on the school staff [probably for improper or delayed reporting or actions]. The original case was a 7th form schoolgirl, who is believed to have contracted the infection from contaminated watermelon. Hepatitis A virus is transmitted via fecally contaminated food and water, and annually affects about 10 million people worldwide. The incubation period for hepatitis A virus infection ranges from 2 to 6 weeks, with an average period of 28 days. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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